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EXAMINER

JOHNSON, ERIC

ART UNIT

PAPER NUMBER

2834

MAIL DATE

DELIVERY MODE

12/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,761	Applicant(s) OHKAWA ET AL.	
	Examiner ERIC JOHNSON	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6 and 8-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-6 and 8-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/21/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 3-4 and 8, have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments, see pg. 11, Ins. 17-22 and pg. 12, Ins. 1-3, filed 7/28/2009, with respect to the flange surface of the connector body of Ineson have been fully considered and are persuasive. The rejection of claim 5 has been withdrawn.

Applicant's arguments, see pg. 15, Ins. 10-16 and , filed 7/28/2009, with respect to the disc-shaped member of Bosman have been fully considered and are persuasive. The rejection of claim 14 has been withdrawn.

Claim Objections

Claims 3 and 4 are objected to because of the following informalities: In the eighth line of claim 3, "**a** other end opening" should be changed to **—an** other end opening-. Claim 4 has a similar problem. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 4 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amended limitation of “a sub-cover member, which enables ***the exposure of the terminal to said connector body***” is not described in the specification and is new matter. On pg. 20, para [0047] of the specification, is stated: “Further, since the sub-cover member 40b for enabling the exposure of the terminal 52a is provided in a portion corresponding to the terminal 52a in the cover member 40, the connection of the end portion of the coil 21 to the terminal 52a is easy, and also the other end opening 12 of the motor casing 10 ***is closed surely to prevent the resin from intruding into the motor casing 10 when the connector body 50 is molded.***” This statement shows that at no time will the terminal be exposed to the connector body, because, when the sub-cover is off, the connector body is not yet molded and after the connector body is molded, the sub-cover is closed, as shown in figs. 1 and 3 in the application. Therefore the amendment of “to said connector body” is not allowed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soya (JP Patent Pub. No. 05207725, using machine translation and translated abstract, herein after Soya) in view of Ineson et al. (US Patent No. 5,334,897, herein after Ineson) and Bosman et al. (US Patent No. 5,254,892, herein after Bosman).

2. Re claim 3, Soya discloses an enclosed motor comprising:

a motor casing (fig. 11 and fig. below) having a peripheral wall portion (fig. 11 and fig. below) formed in a cylindrical shape (figs. 11, para [0011]) and an end wall portion (fig. 11 and fig. below) for closing one end opening (see fig. below) of the peripheral wall portion;

a rotor (fig. 11 and fig. below) provided in said motor casing to drive an output shaft (fig. 11 and fig. below) projecting from said motor casing through a shaft hole (fig. 11 and fig. below) in said end wall portion;

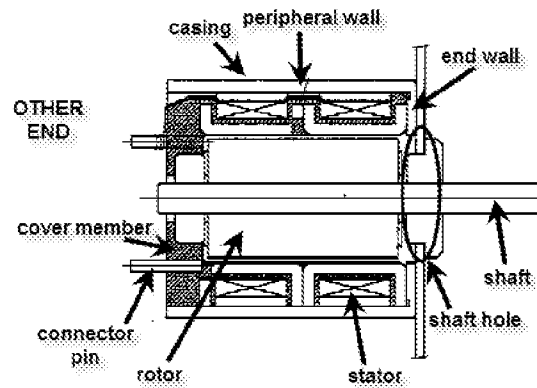
a stator (fig. 11 and fig. below) provided at the periphery of said rotor in said motor casing to rotationally drive said rotor (fig. 11);

a cover member (fig. 11 and fig. below) provided to close an other end opening of said motor casing;

wherein said cover member is formed integrally with said stator using a resin for integrally forming said stator (figs. 11-12, translated abstract) and is formed so as to integrally hold a connector pin (fig. 11 and fig. below), and

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the terminal is located on an outside in an axial direction of a bobbin on which said coil in said stator is wound (figs. 11-12).



Soya fails to disclose a

- a. metallic motor casing,
- b. a connector body integrally formed of a resin so as to close the other end opening of said metallic motor casing from the outside of said cover member,
- c. the connector pin with a portion on the distal end side of which is arranged in said connector body when said connector body is molded and a proximal end portion of said connector pin serving as a terminal for connecting an end portion of a coil in said stator,
- d. the terminal is located on an outside in an axial direction of a bobbin on which said coil in said stator is wound, and is provided so as to extend on the outer periphery side of the bobbin along an end surface in the axial direction of the bobbin.

Ineson discloses (re c. & b. above) a connector body 66 (figs. 1, 2 & 3, col. 4, lines 5-7) integrally formed of a resin (col. 4, lines 56-61) so as to close the other end

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opening of the metallic motor casing (fig. 2, front end cover 18 and stator shroud 14, the other end opening to the right of shroud 14 in fig. 2) from the outside of the cover member 16 (figs. 2 & 3, col. 4, lines 5-13);

a connector pin 40 (fig. 2), a portion on the distal end side of which is arranged in the connector body 66 when the connector body 66 is molded (figs. 2 & 4, col. 4, lines 5-15), the proximal end portion of the connector pin 40 serving as a terminal for connecting the end portion of a coil in the stator 12 (fig. 2, col. 3, lines 13-19).

the connector pin 40 (fig. 2, col. 3, lines 56-67) with a portion on the distal end side (on the right side of pin 40 in fig. 2) of which is arranged in the connector body 66 (fig. 2) when said connector body 66 is molded (figs. 2 & 4, col. 4, lns. 5-15) and a proximal end portion (on the left side of pin 40 in fig. 2) of said connector pin 40 serving as a terminal (where pin 40 and 38 connect in fig. 2) for connecting an end portion of a coil in the stator 12 (fig. 2, col. 3, lines 13-19).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the connector body and connector pin of Ineson with the motor of Soya in order to protect and seal the motor from outside elements (Ineson, col. 1, lns. 6-8, 45-47). Soya in view of Ineson fails to disclose a. & d. above.

Bosman discloses a metallic motor casing 26 (figs. 2-3, col. 6, lns. 31-40) and a terminal 3a (fig. 3, the terminal is made up of four terminals 84a-d, figs. 8 & 10) is located on an outside in an axial direction of a bobbin 40,42 (fig. 3) on which the coil 92,94 (fig. 3) in the stator 28 is wound, and is provided so as to extend on the outer

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periphery side of the bobbin along an end surface in the axial direction of the bobbin (fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the metallic motor casing and terminal of Bosman with the motor of Soya in view of Ineson in order to (re a. above) improve motor operating efficiency (Bosman, col. 6, Ins. 36-42) and (re d. above) in order to save manufacturing time by providing all the coil terminal in one location (Bosman, figs. 3, 8 & 10) as opposed to the four locations of Soya (fig. 12).

3. Re claim 4, Soya discloses an enclosed motor comprising:

a motor casing (fig. 11 and fig. above for claim 3) having a peripheral wall portion (fig. 11 and fig. above for claim 3) formed in a cylindrical shape (figs. 11, para [0011]) and an end wall portion (fig. 11 and fig. above for claim 3) for closing one end opening (see fig. above for claim 3) of the peripheral wall portion;

a rotor (fig. 11 and fig. above for claim 3) provided in said motor casing to drive an output shaft (fig. 11 and fig. above for claim 3) projecting from said motor casing through a shaft hole (fig. 11 and fig. above for claim 3) in said end wall portion;

a stator (fig. 11 and fig. above for claim 3) provided at the periphery of said rotor in said motor casing to rotationally drive said rotor (fig. 11);

a cover member (fig. 11 and fig. above for claim 3) provided to close an other end opening of said motor casing;

wherein said cover member is formed integrally with said stator using a resin for integrally forming said stator (figs. 11-12, translated abstract) and is formed so as to integrally hold a connector pin (fig. 11 and fig. above for claim 3), and

the terminal is located on an outside in an axial direction of a bobbin on which said coil in said stator is wound (figs. 11-12).

Soya fails to disclose a

- a. metallic motor casing,
- b. a connector body integrally formed of a resin so as to close the other end opening of said metallic motor casing from the outside of said cover member,
- c. the connector pin with a portion on the distal end side of which is arranged in said connector body when said connector body is molded and a proximal end portion of said connector pin serving as a terminal for connecting an end portion of a coil in said stator,
- d. a sub-cover member, which enables the exposure of the terminal, is provided in a portion corresponding to the terminal for connecting the end portion of the coil in said stator in said cover member.

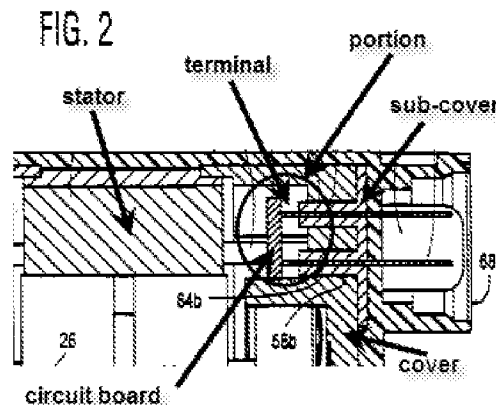
Ineson discloses (Re c. & b. above) a connector body 66 (figs. 1, 2 & 3, col. 4, lines 5-7) integrally formed of a resin (col. 4, lines 56-61) so as to close the other end opening of the metallic motor casing (fig. 2, front end cover 18 and stator shroud 14, the other end opening to the right of shroud 14 in fig. 2) from the outside of the cover member 16 (figs. 2 & 3, col. 4, lines 5-13);

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a connector pin 40 (fig. 2), a portion on the distal end side of which is arranged in the connector body 66 when the connector body 66 is molded (figs. 2 & 4, col. 4, lines 5-15), the proximal end portion of the connector pin 40 serving as a terminal for connecting the end portion of a coil in the stator 12 (fig. 2, col. 3, lines 13-19);

the connector pin 40 (fig. 2, col. 3, lines 56-67) with a portion on the distal end side (on the right side of pin 40 in fig. 2) of which is arranged in the connector body 66 (fig. 2) when said connector body 66 is molded (figs. 2 & 4, col. 4, lns. 5-15) and a proximal end portion (on the left side of pin 40 in fig. 2) of said connector pin 40 serving as a terminal (where pin 40 and 38 connect in fig. 2) for connecting an end portion of a coil in the stator 12 (fig. 2, col. 3, lines 13-19);

a sub-cover member 60 (figs. 1 & 2), which enables the exposure of the terminal (figs. 1 & 2, the terminal is part of connector pin 40 and the terminal is exposed at the inner side of cover member 16, the left side of connector pin 40 in fig. 2, connected to circuit board 38), is provided in a portion corresponding to the terminal (fig. 2 and fig. below) for connecting the end portion of the coil in the stator 12 in the cover member 16 (fig. 2 and fig. below, col. 3, lns. 17-19, 24-28, the coil is connected to the circuit board 38, which connects the winding to the terminal).



It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the connector body, connector pin and sub-cover of Ineson with the motor of Soya in order to protect and seal the motor from outside elements (Ineson, col. 1, Ins. 6-8, 45-47). Soya in view of Ineson fails to disclose a. above.

Bosman discloses a metallic motor casing 26 (figs. 2-3, col. 6, Ins. 31-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the metallic motor casing of Bosman with the motor of Soya in view of Ineson in order to improve motor operating efficiency (Bosman, col. 6, Ins. 36-42).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soya (JP Patent Pub. No. 05207725, using machine translation and translated abstract, herein after Soya), Ineson et al. (US Patent No. 5,334,897, herein after Ineson) and Bosman et al. (US Patent No. 5,254,892, herein after Bosman) in view of Ineson et al. (US Patent No. 6,455,973 B1, herein after Ineson II).

Re claim 5, Soya in view of Ineson and Bosman disclose the enclosed motor, as discussed above for claim 3. Soya fails to disclose the connector body is configured so

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that a surface directed toward the end wall portion side in the axial direction of said metallic motor casing serves as a flange surface for being installed to a member to which the motor is installed by being brought into contact with the member to which the motor is installed.

Ineson II discloses the connector body 58 (fig. 1) is configured so that a surface directed toward the end wall portion side 12 (fig. 1) in the axial direction of said metallic motor casing 50 (fig. 1) serves as a flange surface (fig. 1, at bolts 72,74) for being installed to a member 56 (fig. 1) to which the motor 10 (fig. 1) is installed by being brought into contact with the member 56 to which the motor 10 is installed (fig. 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the connector body flange of Ineson II with the connector body of Soya in view of Ineson and Bosman in order to reduce manufacturing cost and time by combining a flange with the connector body.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soya (JP Patent Pub. No. 05207725, using machine translation and translated abstract, herein after Soya), Ineson et al. (US Patent No. 5,334,897, herein after Ineson) and Bosman et al. (US Patent No. 5,254,892, herein after Bosman) in view of Chol (US Patent No. 7,406,747, herein after Chol).

Re claim 6, Soya in view of Ineson and Bosman disclose the enclosed motor, as discussed above for claim 3. Soya fails to disclose the said rotor has a support shaft portion formed of a material having a self-lubricating property and a rotor magnet fixed

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on the outer peripheral surface of said support shaft portion, and the outer peripheral surface of said support shaft portion is supported rotatably.

Bosman discloses a rotor 30 (figs. 2, 3 & 6a-6d, col. 3, lines 62-65) that has a support shaft portion (figs. 6a-6b, made up of barrier member 56 and hub 62) formed of polybutylene terephthalate (figs. 2 & 6b, col. 4, lines 45-49) and a rotor magnet 68 (fig. 6c) fixed on the outer peripheral surface of said support shaft portion (fig. 6c,)and the outer peripheral surface of said support shaft portion is supported rotatably (figs. 3 & 6d, col. 4, lines 63-66).

Chol discloses polybutylene terephthalate is a material having a self-lubricating property (col. 5, lines 8-11).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the support shaft of Bosman with the motor of Soya in view of Ineson in order to save manufacturing time by forming the shaft and magnet together (Bosman, col.1, Ins. 54-56) and the support shaft of Bosman is self-lubricating through the teachings of Chol.

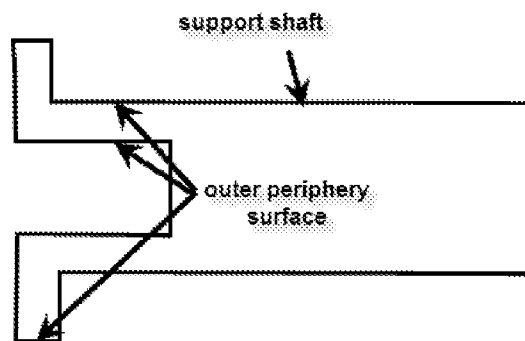
6. Claims 8-9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda Rokku (JP Patent No. 59138387 U, using translated abstract from IDS, herein after Honda),in view of Nidec (JP Patent No. 04061454 U, using translated abstract from IDS, herein after Nidec).

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7. Re claim 8, Honda discloses a motor comprising a rotor 25 (fig. 2) in which a rotor magnet (the rotor 25 has a magnet since the stator has coils 19,20) is fixed on an outer peripheral surface of a support shaft portion 26 (fig. 2), and the outer peripheral surface (fig. 2 and fig. below, periphery is defined as an outside surface, esp. that of a rounded object or body, so that all the surfaces in the fig. below are outer peripheral surfaces, with respect to the support shaft, since all of them are rounded) of said support shaft portion 26 is supported rotatable (the left side of fig. 2 at thrust washer 31),

wherein an end surface (right side of fig. 2 at thrust washer 30) in an axial direction of the support shaft 26 is supported slidably (fig. 2, by thrust washer 30).

Honda fails to disclose the support shaft portion is formed of a material having a self-lubricating property.



Nidec discloses a shaft 2 (fig. 1) is formed of a material having a self-lubricating property (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the lubricated shaft material of Nidec with the support shaft of Honda in order to reduce friction and wear on the bearing 18 of Honda.

8. Re claim 9, Honda in view of Nidec disclose the motor, as discussed above for claim 8 and Nidec further discloses said material of said support shaft portion 26 is a resin having a self-lubricating property (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the lubricated shaft material of Nidec with the support shaft of Honda in order to reduce cost by using the support shaft as a bearing instead of the bearing 18 of Honda.

9. Re claim 12, Honda in view of Nidec disclose the motor, as discussed above for claim 8 and further discloses a tubular member 31 (figs. 2-3) is disposed on the rotary support portion (left side of fig. 2) for rotatably supporting said rotor 25, and an outer circumferential surface of the support shaft portion 26 is rotatably supported through the tubular member 31 (fig. 2, as discussed above for claim 8).

10. Re claim 13, Honda in view of Nidec disclose the motor, as discussed above for claim 8 and Honda further discloses a position (right side of fig. 2) corresponding to one end surface in the axial direction of the support shaft portion 26, a thrust bearing surface 18 (fig. 2) which is in slidably contact with the one end surface is provided (fig. 2, through thrust washer 30), and at a position corresponding to an other end surface (left side of fig. 2) in the axial direction of the support shaft portion 26, urging means 33 (figs.

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2 & 3) for urging from the other end surface side toward a thrust bearing surface side is provided (figs. 2 & 3) .

11. Re claim 14, Honda in view of Nidec disclose the motor, as discussed above for claim 13 and Honda further discloses a disc-shaped member 30 (fig. 2) is disposed between an axial end surface (right side of fig. 2) of the support shaft portion 26 and the thrust bearing 18 surface (fig. 2).

12. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda Rokku (JP Patent No. 59138387 U, using translated abstract from IDS, herein after Honda), and Nidec (JP Patent No. 04061454 U, using translated abstract from IDS, herein after Nidec) in view of Bosman et al. (US Patent No. 5,254,892, herein after Bosman).

13. Re claim 10, Honda in view of Nidec disclose the motor, as discussed above for claim 8 and Honda further discloses the rotor magnet is fixed on the outer peripheral surface of the support shaft portion (as discussed above for claim 8), but is silent about pressing-in, bonding, or post-molding of a resin magnet.

Bosman discloses pressing-in, bonding, or post-molding of a resin magnet 68 (col. 4, lines 54-68, magnet 68 is resin, mixture of barium ferrite and a thermoplastic, and is post-molded) to the support shaft (fig. 6b).

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It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the magnet of Bosman with the rotor of Honda in view of Nidec in order to reduce manufacture time by forming the magnet and rotor during the injection molding process (Bosman, col. 4, lns. 45-49, 54-58).

14. Re claim 11, Honda in view of Nidec disclose the motor, as discussed above for claim 8 but fail to disclose the rotor magnet is fixed on the outer peripheral surface of said support shaft portion by molding the support shaft portion in a state in which the rotor magnet is arranged at the outer periphery.

Bosman discloses the rotor magnet 68 (fig. 6d) is fixed (col. 4, lines 54-68, magnet 68 is post-molded) on the outer peripheral surface of said support shaft portion (figs. 6a-6b, support shaft portion made up of barrier member 56 and hub 62, and figs. 3 & 6c, col. 4, lines 54-58) by molding the support shaft portion in a state in which the rotor magnet 68 is arranged at the outer periphery (figs. 6b-6c, col. 4, lines 45-49, the hub 62 is injected molded to form the periphery of the support shaft portion, then the rotor magnet 68 is arranged on the outer periphery of the support shaft portion, col. 4, lines 54-59).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the magnet and support shaft of Bosman with the rotor of Honda in view of Nidec in order to reduce manufacture time by forming the magnet and rotor during the injection molding process (Bosman, col. 4, lns. 45-49, 54-58).

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC JOHNSON whose telephone number is (571) 270-5715. The examiner can normally be reached on Monday-Friday 8 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quyen Leung can be reached on (571) 272-8188. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ERIC JOHNSON/
Examiner, Art Unit 2834

/Quyen Leung/
Supervisory Patent Examiner, Art Unit 2834